



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office

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SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
09/899,261	07/06/01	Yoshioka	0649-0789P-SP

EXAMINER	
T. Chen	
ART UNIT	PAPER NUMBER
1752	18

DATE MAILED:

EXAMINER INTERVIEW SUMMARY RECORD

All participants (applicant, applicant's representative, PTO personnel):

- (1) T. Chen (3) \_\_\_\_\_  
(2) Garth Dahien (4) \_\_\_\_\_

Date of interview: 5/13/04

Type: ☐ Telephonic ☒ Personal (copy is given to ☐ applicant ☐ applicant's representative).

Exhibit shown or demonstration conducted: ☐ Yes ☒ No. If yes, brief description: \_\_\_\_\_

Agreement ☐ was reached with respect to some or all of the claims in question. ☒ was not reached.

Claims discussed: 1

Identification of prior art discussed: Taya and Moon

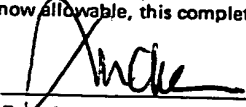
Description of the general nature of what was agreed to if an agreement was reached, or any other comments: Discuss on proposed new Declaration. The Examiner suggested the applicant to compare his material to the material of Taya and Moon.

(A fuller description, if necessary, and a copy of the amendments, if available, which the examiner agreed would render the claims allowable must be attached. Also, where no copy of the amendments which would render the claims allowable is available, a summary thereof must be attached.)

Unless the paragraphs below have been checked to indicate to the contrary, A FORMAL WRITTEN RESPONSE TO THE LAST OFFICE ACTION IS NOT WAIVED AND MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW (e.g., items 1-7 on the reverse side of this form). If a response to the last Office action has already been filed, then applicant is given one month from this interview date to provide a statement of the substance of the interview.

☒ It is not necessary for applicant to provide a separate record of the substance of the interview.

☒ Since the examiner's interview summary above (including any attachments) reflects a complete response to each of the objections, rejections and requirements that may be present in the last Office action, and since the claims are now allowable, this completed form is considered to fulfill the response requirements of the last Office action.

  
Examiner's Signature

PATENT  
0649-0789P

IN THE U.S. PATENT AND TRADEMARK OFFICE

APPLICANT: Yasuhiro YOSHIOKA                      CONF. NO.: 3458  
SERIAL NO: 09/899,261                              GROUP: 1752  
FILED: July 6, 2001                              EXAMINER: Thorl  
Chea  
FOR: PHOTOTHERMOGRAPHIC MATERIAL

NOTES FOR INTERVIEW  
JANUARY 13, 2004  
NOT FOR ENTRY

The following prior art rejections are pending:

- A. Claims 1-2, 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Toya**;
- B. Claims 1-2, 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of **Moon** and **Kirk et al.**;
- C. Claims 3-4 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Toya** or **Moon** as applied to claims 1-2, 5-7 above, and further in view of **Matsumoto et al.**, and **Milton**; and
- D. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Toya** and **Moon** in view of **Matsumoto et al.**, **Kirk** and **Milton**.

**I. TOYA**

**IA - No Prima Facie Case Of Obviousness -**

Toya does not fairly suggest the use of the inventive surface active agent of Formula (F):



wherein Rf represents a perfluoroalkyl group, **Rc represents an alkylene group**, Z represents a group having an anionic group, a cationic group, a betaine-series group, or a nonionic polar group necessary for imparting a surface activity, **n represents 1**, and m represents an integer of 1, 2 or 3, and wherein the photothermographic material comprises a color toning agent, which is a **combination of a phthalazine compound and a phthalic acid compound**.

First, each of the fluorinated surfactants described by Toya do not have an alkylene group bonded to the perfluorinated group.

Second, Toya only uses phthalazinone as the color toning agent in the examples.

**IB - Unexpected Results -**

- New Rule 132 Declaration -

Shows that compounds having an alkylene group bonded directly to the perhalogenated end group gives the photothermographic material superior resistance to white spots.

Table 1'

Sample No.	Base Formula	Fluorine-based Surface Active Agent	White Spots	Note
1	1	Comp. A	8	Comparison
2	2	Comp. A	7	Comparison
001	1	FC-1	10	Comparison
002	1	FC-2	9	Comparison
003	1	FC-3	11	Comparison
004	1	FS-18	3	Invention
005	1	FS-19	3	Invention
006	1	FS-21	2	Invention
007	1	FS-26	4	Invention
008	1	FS-38	3	Invention
009	1	FS-39	3	Invention
010	1	FS-41	2	Invention
011	2	FC-1	9	Comparison
012	2	FC-2	8	Comparison
013	2	FC-3	10	Comparison
014	2	FS-18	2	Invention
015	2	FS-19	1	Invention
016	2	FS-20	1	Invention
017	2	FS-22	2	Invention
018	2	FS-27	3	Invention
019	2	FS-38	2	Invention
020	2	FS-40	1	Invention
	1	FC-4	10	Comparison
	1	FS-13	3	Invention
	2	FC-4	9	Comparison
	2	FS-13	2	Invention

FS-13 -  $C_8F_{17}CH_2CH_2SO_2N(C_3H_7)(CH_2CH_2O)_4(CH_2)_4SO_3Na$  - Invention

FC-4 -  $C_8F_{17}SO_2N(C_3H_7)(CH_2CH_2O)_4(CH_2)_4SO_3Na$  - Toya

FC-3 -  $C_8F_{17}SO_3K$  - Toya

Comp. A = N-perfluorooctylsulfonyl-N-propylalanine potassium salt and polyethylene glycol mono(N-perfluorooctylsulfonyl-N-propyl-2-aminoethyl) ether

The structure of the surface active agents FC-1, FC-2 and FC-3 can be found on page 80 of the specification. The structure of the surface active agents FS-18, FS-19, FS-21, FS-26, FS-38, FS-39 and FS-41 can be found on pages 11-12 of the specification.

Based on the above-described data, the Declarant, Mr. Yasuhiro Yoshioka states:

the improved properties of the inventive photothermographic material incorporating surface active agents having an alkylene group bonded directly to the fluorinated end group are **unexpected** based on the disclosure of Toya, either taken alone or in combination with the prior art. (Emphasis in original).

## II. MOON

### IIA. - No Prima Facie Case Of Obviousness -

Moon does not fairly suggest the use of the inventive surface active agent of Formula (F):



along with a color toning agent, which is a **combination of a phthalazine compound and a phthalic acid compound.**

First, Moon does not fairly suggest the inventive surface active agent wherein the alkylene group is bonded directly to the perfluorinated group, see Column 3, lines 17-57. In the examples, Moon does not use the inventive surface active agent, see column 18, lines 21-37.

Second, the superior results described by Moon at Column 3, lines 52-57 relate to black spots (black pepper) not white spots as in the present invention.

Third, Moon only uses phthalimide as a color toning agent in the examples, see column 19, line 11.

**IIB - Unexpected Results -**

- Rule 132 Declaration submitted August 8, 2003 -

The Declarant, Mr. Yoshioka, has found that the present photothermographic material made from the combination of phthalazine and phthalic acid has an unexpectedly superior reduction in white spots when compared to the photothermographic material of Example 1 of Moon (US 5,989,796) which incorporates the combination of succinimide and phthalimide.

Attached: New Rule 132 Declaration